

COTTONWOOD DAM

Fact Sheet

PROJECT DESCRIPTION

- ◆ Impounds Cottonwood Creek in Park County.
- ◆ Located approximately 5 miles north of Wilsall.
- ◆ Owned by DNRC & managed by SWPB.
- ◆ Operated by the Shields Canal Company since 1953.

- ◆ Project consists of:
 - ◆ Earthen Embankment Dam, 39 feet high, 610 feet long.
 - ◆ Earthfill Dike, 8 feet high, 825 feet long.
 - ◆ Uncontrolled guard dike spillway with ogee crested chute and baffle blocks.
 - ◆ 36-inch, 197 foot-long corrugated steel pipe outlet with 36-inch vertical slide gate in a rectangular wet tower with controls at the dam crest.

- ◆ Original construction completed in 1953.
- ◆ Reservoir capacity is 1,905 acre-feet at spillway crest, covering 235 surface acres.
- ◆ 1379 acre-feet is under contract with the Shields Canal Company.
- ◆ The dam is a “high hazard” structure, which means that its failure could cause loss of life. Numerous farms and ranches, roads, bridges, and utilities are located in the flood plain.

PROJECT DEFICIENCIES

- ◆ Existing drains and outlet conduit are deteriorating and at the end of design life.
- ◆ Spillway is undersized and does not meet current safety standards.

PROPOSED REHABILITATION

- ◆ Replace the spillway or increase freeboard to meet current spillway standards.
- ◆ Construct an auxiliary spillway
- ◆ Replacing the outlet conduit with a new structure.
- ◆ Install new drains for seepage control.

Estimated cost: Could exceed \$1,500,000



Dike



Downstream face



Spillway



Upstream face

